

What is claimed is:

1. A method for decontaminating or disinfecting a TSE infected sample or material comprising heating the sample or material in a wet environment to a temperature above about 100°C for a time period of less than about 1 minute, wherein the integrity of said sample or material is substantially preserved.
2. The method of claim 1, wherein the sample or material is heated to a temperature above about 121°C.
3. The method of claim 1, wherein the sample or material is heated to a temperature of about 100°C to about 150°C.
4. The method of claim 1, wherein the sample or material is heated to a temperature of about 100°C to about 140°C.
5. The method of claim 1, wherein the time period is less than about 30 seconds.
6. The method of claim 1, wherein the time period is about 3 to about 15 seconds.
7. The method of claim 1, wherein the time period is about 4 seconds.
8. The method of claim 1, wherein the decontaminating or disinfecting is performed substantially in the absence of air.
9. The method of claim 1, wherein the sample is heated to about 140°C for about 4 seconds.
10. A method for decontaminating or disinfecting or inactivating a TSE infectivity in a sample or material comprising contacting the sample or material with a solution of about 0.1N or greater alkali hydroxide ions for a time period ranging from about 30 seconds to about 10 minutes to decontaminate or

disinfect or inactivate the infectivity in said sample or material.

11. The method of claim 10, wherein said alkali hydroxide is sodium hydroxide.
- 5 12. The method of claim 10, wherein said sodium hydroxide is from about 0.1N to about 2N.
- 10 13. The method of claim 10, wherein the time period is less than about 2 minutes.
14. The method of claim 10, wherein the time period is about 30 seconds to about 2 minutes.
15. The method of claim 10, wherein the time period is about 30 seconds.
16. The method of claim 15, wherein said solution is about 1N sodium hydroxide.
17. The method of claim 10, wherein the method is carried out at about room temperature.
- 20 18. The method of claim 10, wherein said solution is about 0.1N or higher sodium hydroxide and said time period is less than about 2 minutes.
19. A method for decontaminating, inactivating or disinfecting a TSE infectivity in a sample or material comprising:
  - i) contacting the sample or material with a solution of about 0.1 N or greater alkali hydroxide ions for a time period ranging from about 30 seconds to about 10 minutes; andheating the sample or material in a wet environment to a temperature above about 100°C for a time period sufficient to decontaminate, inactivate or disinfect said sample or material.
- 30 20. A method for decontaminating, inactivating or disinfecting a TSE infectivity in

a sample or material comprising

- i) contacting the sample or material with a solution of alkali hydroxide ions; and

5 heating the sample or material in a wet environment to a temperature above about 100°C for a time period of less than about 1 minute to decontaminate, inactivate or disinfect said sample or material.

- 10 21. A method for detecting or isolating a PrP<sup>res</sup> signal from a sample comprising:
- i) adding a protease in the presence of detergent to a PrP<sup>res</sup> containing sample to digest PrP<sup>c</sup> present in the sample but not PrP<sup>res</sup>;
  - ii) denaturing PrP<sup>res</sup> remaining in the sample after digestion;
  - iii) applying the resultant solution to a resin; and
  - iv) eluting the PrP<sup>res</sup> signal from the resin.
- 15 22. The method of claim 21, wherein prior to adding a protease, the sample is extracted with an ionic detergent.
23. The method of claim 22, wherein the ionic detergent is SDS or Sarkosyl.
- 20 24. The method of claim 22, wherein the amount of detergent is as little as 0.1%.
- 25 25. The method of claim 21, wherein the protease is \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ or proteinase K.
26. The method of claim 21, wherein denaturing is performed by boiling.
27. The method of claim 21, wherein prior to applying the solution to a resin, the solution is diluted.
- 30 28. The method of claim 21, wherein the resin is Protein G or Protein A.
29. The method of claim 21, wherein the resin is Protein A conjugated to an anti-

PrP antibody.

30. The method of claim 21, wherein a Western blot is performed after the eluting step.

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31. The method of claim 10 wherein the integrity of said sample or material is substantially preserved.

- 10 32. The method of claim 19 wherein the integrity of said sample or material is substantially preserved.

33. The method of claim 20 wherein the integrity of said sample or material is substantially preserved.

- 15 34. Apparatus for decontaminating or disinfecting a TSE infected sample material, comprising

a capillary storage tube having a first end with a first coupling and a second end with a second coupling;

20 a first syringe for collecting a sample of TSE infected material through a first needle, the first needle being removable and replaceable by a tube terminating in a needle coupling connectable to the first coupling of the capillary storage tube for injecting the TSE sample into the capillary storage tube;

a bridging capillary connected to the second coupling for receiving excess sample;

25 a second syringe for filling with water and for attachment to the bridging regulator capillary;

a back pressure regulator for attachment to the bridging regulator capillary after the storage capillary has been charged with water from the second syringe;

a trap attachable to the low pressure side of the back pressure regulator;

30 an overflow capillary tube of a length to contain a displaced portion of the TSE sample, the overflow capillary tube being coupled to the first coupling upon disconnecting the first syringe therefrom, the overflow capillary tube having a third coupling, and

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a thermocouple for attachment to the third coupling of the overflow capillary tube; the thermocouple having a sensor lead extending through the overflow capillary tube and into a portion of the capillary storage tube until the TSE sample rises to a preselected level in the overflow capillary tube, wherein the thermocouple senses the temperature of the TSE sample in the capillary storage tube upon applying a heat pulse to the capillary storage tube to disinfect the TSE infected sample materials in the capillary storage tube.

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35. The apparatus of claim 34 wherein the capillary storage tube is configured as a coil.

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36. The apparatus of claim 35 wherein the capillary storage tube configured as a coil is stabilized by an axially extending rigid rod welded thereto.